

2019



**FISCAL YEAR 2019 ANNUAL
PROGRAM PLAN & BUDGET**

FOR THE YEAR JULY 1, 2018 TO JUNE 30, 2019

EXECUTIVE SUMMARY

The Clean Energy Development Fund's (CEDF) plan and budget for fiscal year (FY) 2019 (July 1, 2018 through June 30, 2019) maintains and continues the programs and grants started in past fiscal years. There are few new programs for the year. As mentioned in CEDF's fiscal year 2018 Plan and the 2018 Strategic Plan, the CEDF is planning on a controlled winding down of all CEDF programs during FY 2019, and possibly into FY 2020.

As the CEDF programs end, the Public Service Department (PSD) will preserve the CEDF in order to fulfill the statutory requirements of the CEDF as well as to maintain the option of reviving incentive programs if funding for the CEDF is secured.

Over the last twelve months the CEDF invested almost \$2 million in Vermont's clean energy sector, with a specific focus on building the advanced wood heating market. The CEDF has played a central role in helping to build this new employment sector of our clean energy economy.

In FY19, the CEDF budgets \$3.8 million to build on past programmatic support of building strategic components of Vermont's energy markets while also providing support for Vermont's low-income populations. The Fund's principle programmatic goal for the year is to continue to grow the Vermont market for advanced wood heating, specifically with local bulk wood pellets or chips. Increased use of local wood for heating helps build Vermont's sustainable forest products industry and clean energy sector.

This FY19 plan continues investing CEDF's American Recovery and Reinvestment Act (ARRA) funds in existing programs in support of low/moderate-income Vermonters with grants and interest rate buy-downs for residential pellet heating, thermal energy efficiency measures, and wood stove change-outs for cleaner more energy efficient wood and pellet stoves.

One new CEDF effort for the year is a low-income community solar pilot program with Green Mountain Power that the CEDF proposed to GMP in FY18 and GMP agreed to fund with Nuclear Energy Insurance Liability (NEIL) Funds.

The CEDF budget for FY19 is comprised mostly of State and Federal funds carried forward from FY18. In addition to NEIL grant funds received from GMP in FY18 the CEDF has \$253,000 available that the Vermont Legislature appropriated to the CEDF for FY19. However, \$200,000 of that is required to be reserved for payments to the Vermont Tax Department to recover the lost revenue from a new sales tax exemption on advanced wood boilers. In addition revenue for FY19 will come from interest and principal payments from CEDF funded loans, and interest earned on CEDF's balance of funds.

PURPOSE OF THE ANNUAL PROGRAM PLAN and BUDGET

The purpose of the Annual Program Plan is to describe the initiatives and programs that the CEDF will pursue during the fiscal year and to establish an annual budget for the expenditure of CEDF funds.

The Annual Program Plan and associated budget are CEDF's efforts to effectively use the funds available to meet the legislated purpose of the CEDF as well as CEDF's goals and objectives, as outlined below.

MANAGEMENT & GOVERNANCE

In accordance with 30 V.S.A. § 8015, the CEDF is administered by the Department of Public Service (PSD) with oversight by the Clean Energy Development Board (Board). A Fund Manager hired by the PSD, with assistance from other PSD staff, manages the day-to-day operations of the Fund.

The Board reviews and approves the CEDF Annual Program Plan, budget, and programs. The Board consists of seven persons, three appointed by the PSD Commissioner, two by the Chair of the Senate Committee on Natural Resources and Energy, and two by the Chair of the House Committee on Energy and Technology. Board members are appointed to four year terms, or for the remainder of a four year term if appointed to fill a vacancy.

The current Board members, the authority that appointed each member, and the year (*terms end on June 30th*) each member's term expires are:

- Jared Duval, Co-Chair, PSD Commissioner, 2019
- David Farnsworth, PSD Commissioner, 2021
- Johanna Miller, House Energy Committee Chair, 2021
- Janice St. Onge, PSD Commissioner, 2019
- Sam Swanson, Co-Chair, Senate Energy Committee Chair, 2019
- Gaye Symington, House Energy Committee Chair, 2019
- Ken Jones, Senate Energy Committee Chair, 2021

PLANNING FRAMEWORK

While this annual plan focuses on the programs and spending of one year, CEDF's planning decisions are based on a framework that assumes multiple years of programmatic activity. In creating the FY19 plan the CEDF revisited the decisions made in prior years that resulted in the Fund's current programs and focus on advanced wood heating that will flow into FY19. The CEDF decided, for FY19, to maintain the programs and focus developed in the FY18 plan. The CEDF came to this decision after examining: the program data collected, the level of market development achieved in the targeted advanced wood heating sector, progress made towards CEDF goals, and the funding available.

VISION, GOALS AND OBJECTIVES

To guide CEDF decisions, a multi-year strategic plan was developed in 2018. The strategic plan was built to advance the statutory purpose of the CEDF to promote the development and installation of cost-effective and environmentally sustainable renewable energy resources for the long-term benefit of Vermont consumers. To prevent the strategic plan from becoming stagnant and forgotten until the next five-year plan needs to be written, and to ensure that annual plans are aligned with the strategic plan, the CEDF reviews the strategic plan each year when creating its annual plan. For the FY19 Plan and Budget the vision and goals of the 2018 multi-year strategic

plan were maintained.

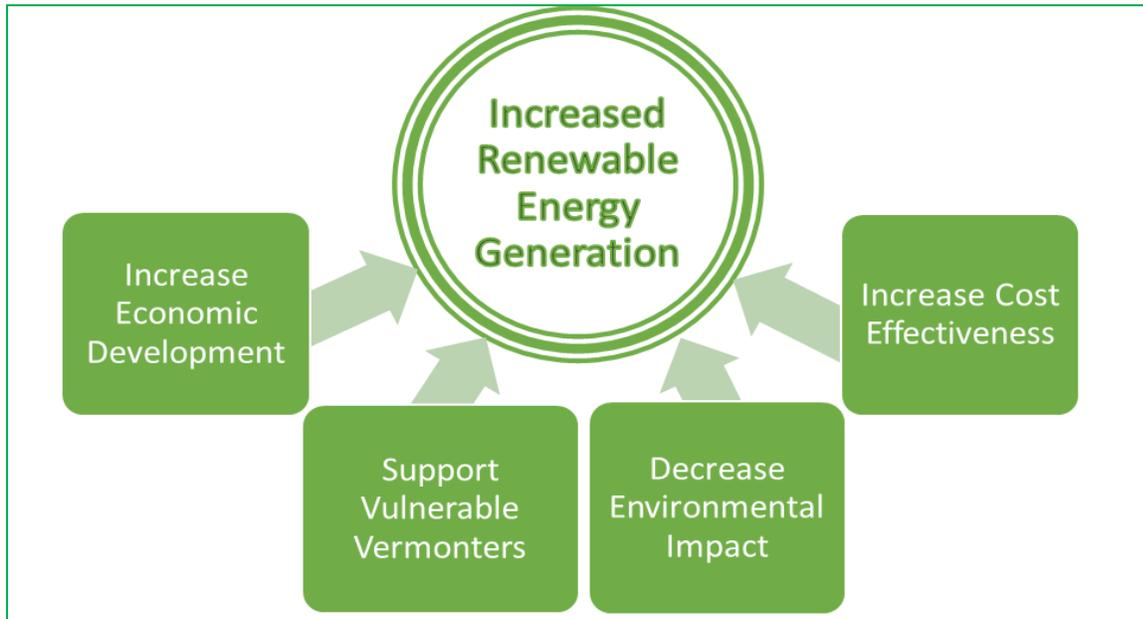


Figure 1. CEDF's four goals in support of its vision.

BUDGETED FY19 REVENUES

The CEDF budget for FY19 includes \$15,000 of interest income, and \$387,000 of loan principal and interest payments from outstanding loans CEDF made in the past. In addition, the General Assembly appropriated \$253,000 to the CEDF in the State's FY19 budget. The CEDF will use the revenue for the programs detailed below. See Appendix A for the FY19 budget of CEDF funds.

Separately, the CEDF continues to manage a renewable energy loan fund created in 2009 with American Recovery and Reconstruction Act (ARRA) funds. This ARRA loan fund is administered by the Vermont Economic Development Authority (VEDA). Principal and interest payments from the ARRA loans are budgeted to be \$118,650 during FY19. These funds, as well as funds paid back but not granted out in prior fiscal years, will be redeployed as detailed below. See Appendix B for the FY19 budget for the ARRA funds.

OVERVIEW OF PLAN & BUDGET

The CEDF will continue to focus on advanced wood heating as its strategic clean energy technological focus. The CEDF has chosen advanced wood heating as its focus for renewable energy technology due to its many benefits that support the Fund's four goals. For example, advanced wood heating:

- Keeps dollars spent on heating fuel in the local economy
- Supports the local forest products industry
- Supports the maintenance of forests as forests and Vermont's working landscape

- Creates and maintains a diverse set of jobs ranging from those working in the forest to those selling pellets and installing heating systems
- Builds on Vermont's traditional wood heating manufacturing base and rich wood heating history
- Improves the quality and effectiveness of wood heating, a fuel system that serves the needs of many low to moderate income families in Vermont
- Reduces the use of fossil fuel
- Lowers carbon emissions
- Improves heating resiliency

The Fund's focus on wood heating was established in FY15, at which point the Fund began to build its knowledge of Vermont's wood heating market. In FY16 through FY18 the Fund established programs and awarded grants to grow the Vermont advanced wood heating market. In FY19 the CEDF plan and budget are a continuation of the programs started in prior fiscal years.

Progress in getting advanced wood systems installed and catalyzing the market has been slow compared to the dramatic rise in solar systems installed in the last several years. Continued low oil prices and other market factors have made the decision to transition to wood heat a more difficult one, even with CEDF's incentives and low interest rates. The CEDF anticipates that the market for advanced wood heating in Vermont and the Northeast will begin to grow more rapidly in FY19 due to: new incentives being offered by Efficiency Vermont (EVT) and Vermont electric utilities; consumers' heightened awareness of advanced wood heating options; and a new state sales tax exemption for advanced pellet boilers¹.

The CEDF is coordinating with EVT on combined advanced wood heating incentives to provide a seamless incentive process for homeowners installing new pellet boilers/furnaces. With the new sales tax exemption, EVT increasing their incentives, and the foundational work completed over the prior three fiscal years by the CEDF and others, Vermont should see a notable increase in advanced wood heating installations and progress towards market maturity that CEDF is seeking. If fossil fuel prices continue to increase, the market transformation of advanced wood heating will likely be more pronounced.

The Fund will continue the Small Scale Renewable Energy Incentive (SSREI) Program as a primary program to reach CEDF's goals and objectives. In FY19 the CEDF plans to work with the Vermont Department of Environmental Conservation on a wood stove change-out program, as a component of the SSREIP. The CEDF administered change-out program in FY17 was successful and the CEDF gained insights into the retail pellet stove market that will be used in developing any FY19 change-out programs.

While wood heating will be the focus in FY19, the CEDF will be completing grants in support of other renewable energy technologies important for Vermont such as compost heat recovery and battery storage systems tied to renewable energy generation. CEDF staff will also issue a competitive grant solicitation in support of a clean energy storage project(s) hopefully in conjunction with support from the Sandia National Laboratory. The CEDF will also continue to keep up-to-date with the overall clean energy sector in Vermont on the Northeast.

¹ Act 194 of 2018

CEDF's largest program was established with the allocation of \$2.6 million for renewable energy development in Windham County. In FY19 the CEDF will continue the Windham Wood Heat Initiative that started in 2015 and underwent a structural change in FY17 when the grant was re-issued to a new grantee, the Windham Regional Commission. A separate Windham County program that started in FY17, the Renewable Energy Grant Program, is also administered by the Windham Regional Commission and will continue into FY19 as the projects that were awarded grants are completed and grant funds are dispersed to recipients.

Federal ARRA clean energy funds loaned out from 2010 to 2012 provide revenue to the CEDF as the borrowers pay back the loan principal and interest. No new loans have been issued since the CEDF stopped its loan program. In FY19 approximately \$500,000 of returned ARRA funds will be used for a residential low-income pellet stove and grant program in Rutland County administered by NeighborWorks of Western Vermont that started in FY18. Another \$500,000 will be used for a state-wide wood stove change-out, and pellet stove program for Vermonters eligible for free Weatherization services.

DESCRIPTION OF PROGRAMS & BUDGET

The programs described below provide details on the Fund's planned programs for the year and provide a narrative for the budgeted line items in Appendixes A and B.

Windham County Programs

For FY19 over \$1.5 million is budgeted for renewable energy programs in Windham County. The three programs that were operational in FY18 will continue in FY19:

1. The Windham Wood Heat Initiative
2. The renewable energy competitive grant program
3. Low-income residential pellet heating program

Windham Wood Heat Initiative: While about half of the \$1.6 million allocated to Windham County in FY15 remains unspent, there has been a continuing collaborative effort to build the advanced wood heating market in the County from the ground up. The CEDF is confident that the slow progress in building the market is better for the long-term economic prosperity of the County than trying to artificially expend the grants quickly. The approximately \$800,000 of remaining funds available in FY19 will be granted in support of transitioning schools and other public serving institutions to advanced wood heating systems.

The Renewable Energy Competitive Grant Program: The remaining \$357,000 of the \$700,000 program will be drawn down as the previously granted projects from FY18 and \$65,000 of new grants in FY19 reach completion.

Low-income Residential Pellet Heating Program: A total of \$270,000 of the Windham County funds were granted in FY18 to the Windham and Windsor Housing Trust to develop a residential advanced wood heat program targeted to low-income residents. This program is leveraging State and County funds and outreach/education efforts to build the emerging advanced wood energy economy in Windham County and to help lower particulate emissions by changing-out non-EPA compliant wood stoves with EPA certified stoves.

Program Evaluation: Approximately \$76,000 of the Windham County Funds (2.9% of the total) will be used to evaluate the Windham County programs and provide recommendations for future investments in the County's clean energy sector. The CEDF will investigate completing this evaluation work as part of a state-wide evaluation of CEDF's programs that will take place in FY19.

Small Scale Renewable Energy Incentive (SSREI) Program

The SSREI Program will continue in FY19 with an allocation of just over \$1 million. The program has been a proven mechanism to grow the residential and small commercial small-scale renewable energy technologies in a widely distributed and accessible manner. In evaluating past CEDF programs and incentives of the CEDF, the SSREI Program was determined to be the most cost effective and impactful program in meeting the Fund's goals and objectives. This program's advantages include being market-based, cost effective, and simple, with open and transparent access to the incentives.

The SSREI Program transitioned to providing incentives only for residential pellet heating systems in the 4th quarter of FY18. Efficiency Vermont (EVT) started a commercial and institutional advanced wood heating incentive in the 3rd quarter of FY18, providing CEDF an opportunity to focus its remaining resources on the residential market. EVT and CEDF have aligned their incentive programs (EVT also offers a residential incentive for pellet boilers) and will combine the two incentives onto one incentive/rebate form. This will result in a combined \$6,000 incentive that is administratively simpler for the customers, pellet boiler contractors, and program administration. This should have a substantial impact on the market development for pellet boilers in Vermont.

The CEDF is allocating \$200,000 towards a state-wide wood stove change-out program as a component of the SSREI Program. Additional funds from the Vermont Department of Environmental Conservation are anticipated to expand the reach and impact of this stove change-out program.

The remainder of the funds will be for: paying incentives for reservations made in FY18, administration of the program, and incentives for maple sap evaporators fueled with wood pellets.

The Vermont Small-Scale Renewable Energy Incentive Program will be administrated, for the first half of FY19, under an existing contract with the Renewable Energy Resource Center, a division of the Vermont Energy Investment Corporation (www.erc-vt.org). The decision for how to administer the program beyond December will be determined by the PSD in the fall of 2018.

Competitive Grants for Bulk Pellet Infrastructure & Advanced Wood Heating Systems

There will not be any new competitive grants for advanced wood heating in FY19. Financial support for new projects will be available exclusively through the SSREI Program.

However, the CEDF will continue to collaborate with, and leverage the projects of, the many organizations working on promoting wood heating in Vermont and New England, such as the State Wood Energy Team, the Biomass Energy Resource Center, the Vermont Sustainable Jobs Fund, and the Northern Forest Center. The CEDF will also continue to collaborate across State Government to promote advanced wood heating.

One competitive grant from FY17 for \$250,000 in support of bulk pellet supply in the Northeast Kingdom of Vermont was extended into FY19. The grantee, Kingdom Pellet, had to abandon plans for a new mill in Lunenburg, VT. CEDF extended their grant into FY19 to give the grantee time to identify a new location and submit a proposal for changes to their grant agreement for new bulk pellet operations in Vermont's Northeast Kingdom.

Program Evaluation

The CEDF has budgeted \$90,000 for a third party professional evaluation of CEDF's programs, with a focus on the Fund's efforts to promote and transform the advanced wood energy market in Vermont. The CEDF issued a solicitation for evaluation proposals in FY18 and will contract with the winning proposal in FY19. The CEDF has regularly tracked and reported how CEDF's resources have been used and the resulting accomplishments, including the number and types of projects funded, the renewable energy capacity constructed, and the environmental benefits provided.

However, while the CEDF has effectively tracked progress made toward increasing the installation of new renewable energy capacity in Vermont, a more comprehensive assessment of program effectiveness including a continuous learning cycle consisting of planning, action and reflection, is warranted. Data gleaned from the evaluation will enable the CEDF to improve program performance and will help the Fund to communicate its successes and difficulties, for the benefit of similar efforts.

Clean Energy Storage Grants

In 2017 the Vermont Act 53 was passed. In it, the PSD was tasked with producing a report to the Legislature on the state of energy storage, its costs and benefits, and barriers to and opportunities for deployment. Act 53 also authorized, "energy storage projects that facilitate utilization of renewable energy resources" as a category of eligible expenditures for the CEDF.

The PSD completed the report in FY18 and the CEDF has allocated \$50,000 to support one or more storage projects in Vermont that leverage other funds and increase the states experience on deploying power storage systems in support of increased renewable energy generation. The funds will likely be awarded to one or more projects through a competitive solicitation process, possibly starting with a request for information to gather additional details about the range of possible storage projects CEDF grant could assist with. The overarching goal of any storage grant from the CEDF will be to help optimize the integration of renewable energy into the electric grid while realizing maximum benefit for ratepayers.

Clean Energy Finance and Clean Energy Industry Reports

The Fund will provide for the development and management of two separate reports covering the clean energy sector in Vermont. Both reports are being written by consultants under multi-year contracts that were agreed to in FY18. The CEDF will oversee the clean energy industry/jobs report and the clean energy finance report for the next two years.

The Fund has budgeted \$32,000 to continue the annual Vermont Renewable Energy Industry Survey and \$24,000 for the Clean Energy Finance Report for the next two years. Over the past five years the industry survey data and analysis provided specific market information that was helpful to the Fund and others to gauge the effectiveness of state clean energy policies and incentives designed for growing this sector of the economy.

Competitive Community Solar Grant

The CEDF has one remaining grant from the competitive grant solicitation issued in prior fiscal years. The Hyde Park Electric Department's (HPED) grant project is creating a voluntary community solar program for HPED's low-income customers. There is about \$50,000 remaining in the grant that will carry forward into FY19. HPED is working with the Vermont Public Power Supply Authority (VPPSA) on the project.

Forest, Parks, & Recreation (FPR) Wood Energy Coordinator

The CEDF will provide \$10,000 per year for the next two years under an MOU with Vermont FPR in support of a wood energy coordinator staff position at FPR that was hired in FY18 as part of a three-year grant from the US Forest Service. The full \$20,000 for the next two years is being budgeted for FY19. The PSD, Agency of Commerce and Community Development, and FPR are all contributing funds for this position to reach the matching funds necessary to secure the federal US Forest Service grant in support of the position.

Solar Permitting Training

The CEDF has \$14,000 that a solar developer paid to the CEDF due to a Public Utility Commission issued fine resulting from an environmental violation committed during the installation of a solar project. The funds are required to be spent on environmental permitting training of solar PV installers in consultation with the Agency of Natural Resources (ANR).

CEDF Administration & Program Management

In FY19 the budget for program administration and management is \$175,000. These funds will cover the salary and benefit costs of PSD staff, including the CEDF Fund Manager, managing CEDF programs as well as CEDF related administrative costs incurred by the PSD.

Loan Servicing Fees

The CEDF has budgeted \$15,000 for payment to Vermont Economic Development Authority (VEDA) to service existing CEDF loans. The fees are based on a \$900 per quarter flat fee plus 1% of the outstanding balance of all CEDF loans VEDA is servicing.

American Recovery and Reinvestment Act (ARRA) Revolving Loan Funds

As part of the ARRA funded programs the CEDF created a \$3.8 million revolving loan fund in 2010, administered by VEDA. In 2012 the Fund ended its loan program. Loan principle and interest that borrowers pay back to the CEDF are being re-deployed to other financial incentive programs. The CEDF continues to believe the greatest benefit of these ARRA funds is to leverage other financial products available and not through direct loans. Approximately \$1.8 million of the ARRA funds loaned out that have been repaid to VEDA are available to the CEDF in FY19.

In FY19 the CEDF will use \$500,000 of the returned ARRA loan funds for a low-income residential program administered by NeighborWorks of Western Vermont that was started in FY18. The program includes wood stove change-outs, thermal energy efficiency audits and measures, and an interest rate buy-down program directed to residents of Rutland County. The program will increase the use of bulk pellet heating, decrease particulate emissions, and increase the thermal energy efficiency of the participating homes.

The CEDF has reserved \$500,000 for a possible wood stove change-out program for State Weatherization recipients. This would allow weatherization crews to change out dangerous and polluting wood stoves with new safe, efficient, and cleaner EPA certified cord or pellet stoves.

ACTIVITIES AS PART OF THE PUBLIC SERVICE DEPARTMENT

As part of the PSD, the CEDF will continue to be a resource for the PSD on renewable energy matters. The CEDF will build upon its current role as a virtual clearinghouse for state government for information about renewable energy technology and funding options. By doing so, the CEDF strengthens interagency relationships, coordination, and program leverage to help generate collective benefits from increased renewable energy such as economic development, affordability, and the reduction of energy poverty.

<u>APPENDIX A - Fiscal Year 2019 CEDF Budget</u>	
CEDF FY 2019 Carry Forward and Estimated Revenue	\$
CEDF Cash Balance Carried Forward From FY18	3,171,295
CEDF Loan Repayments (P&I)	387,000
FY19 Appropriation (<i>Past Solar Tax Credit Funds</i>)	253,292
Interest	15,000
TOTAL FY '19 Revenue & Carry Forward	3,826,587
CEDF Program Allocations & Expenses	
Programs	\$
Windham County Programs	1,550,530
Small-Scale Renewable Energy Incentive and Wood Stove Change-out Programs (Program delivery & Incentives)	1,034,304
Advanced Wood Heat Supply - Competitive Grants	250,000
Advanced Wood Heat Sales Tax Exemption	200,000
Low Income Community Solar	150,000
Rutland County Low-income Stove Change-out and Advanced Wood Heating Program	115,000
Program Evaluation & Database	90,000
Farm Energy-Compost Heat Recovery	55,000
Clean Power Storage Project	50,000
Clean Energy Industry Survey	32,000
Municipal Solar Grant - Hyde Park	50,714
Clean Energy Finance Collaborative	24,000
Grant to FP&R for Wood Energy Coordinator	20,000
Solar Permitting Training	14,000
Program Management and Administration	175,000
Loan Servicing Fees	15,000
TOTAL	3,825,548

<u>APPENDIX B</u>	
Fiscal Year 2019 ARRA-CEDF Budget	
ARRA-CEDF FY 2019 Carry Forward and Estimated Revenue	\$
ARRA-CEDF Carry Forward	1,709,745
Loan Repayments (P&I)	118,650
Interest on Cash Balance	5,000
TOTAL ARRA Funds	1,833,395
FY '19 ARRA Funds Allocation & Expenses	
Programs	\$
Residential Low Income Pellet-stove IRB and Grant Program	500,000
Weatherization Wood Stove Change-out, and Pellet Stove Program	500,000
ARRA Loan Administration Fees	15,000
TOTAL ARRA \$ ALLOCATIONS	1,015,000